# SEALED DOME PUSHBUTTON SWITCHES

#### ATTRACTIVE AND RUGGED FOR WET & DUSTY ENVIRONMENTS

The OTTO P9 series pushbutton switches feature a contoured Dome style pushbutton and share similar size and characteristics to the OTTO P7 series. Major differences are plastic housing construction and the availability of a shorting bar contact arrangement. There are two button versions: low button profile and high button profile. The P9 comes with a threaded case for hex nut mounting or with a snapin case. The switch series features short behind-panel depth. They also offer excellent mechanical and electrical performance while operating under severe conditions found in demanding applications.

The OTTO P9 Dome series is offered in dusttight and moistureproof sealed construction. Expect a minimum of 25,000 operations at full rated load of 5 amperes resistive or 3 amperes inductive; up to a million operations in low signal switching.

Watertight sealing (IP68) submersible to 1 meter water pressure is available. Add "W" suffix to the part number to specify IP68 rating.

The OTTO P9 Dome series is available in standard and low-force double-break snap-action and non-snap shorting bar models. All are momentary action. Special contact variations are available. High contact pressure and unique contact design provide low contact resistance for low level switching capability as well as full rated service. Solder, PC Pin, and .110" Quick Connect termination options are available.

Positive tactile feedback signaling the operator when the switch is operated is available in snap-action models but not shorting bar models.

The OTTO P9 Dome series is a quality precision switch designed for use in panels, control grips, computers, instruments, heavy equipment and other demanding applications where attractive, rugged pushbutton switches are required.

## **Quality Features:**

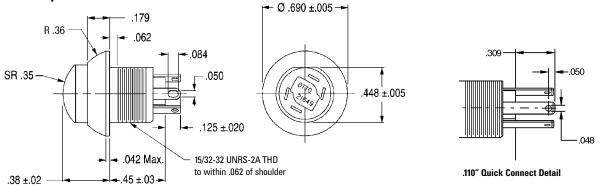
- Attractive Dome style button
- Two button heights
- Double-break or Shorting bar, momentary action
- All plastic housing and button construction
- Threaded body or snap-in panel mounting
- Withstands extreme shock & vibration
- Positive tactile feedback contact transfer on snap-action models
- Solder, P.C. Pin, and .110" Quick Connect terminal styles



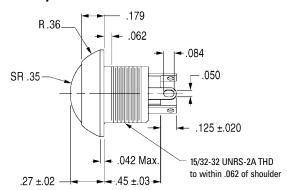
OPERATIONAL:							
Mechanical Life:	1,000,000 c	1,000,000 cycles, minimum					
Seal:		Moistureproof and dusttight to IP64 & MIL-PRF-8805 Design 2 Watertight to IP68					
Operating Force:	Otaliaai ai i	Standard: 1.7±.5 lbs. Low Force: 12 oz., ±4 oz.					
Total Travel:	.080 max.	.080 max.					
Temperature Range	: -55°C to +8	-55°C to +85°C					
Case/Bezel:	Thermoplas	Thermoplastic					
Button:	Thermoplas	Thermoplastic. Standard Case/Bezel is Black.					
Mounting Hardware		Hexnut & Lockwasher Torque Hexnut to 10 in./oz. max.					
Contacts:	Gold Plated	Gold Plated Silver Alloy					
ELECTRICAL:	Snap-Action: at 28 VDC or 115 VAC, 60/400 Hz. Shorting Bar: at 5VDC						
	Current Rating		Operational Life (Min. Cycles)				
Load S	Snap-Action	Shorting Bar	Snap-Action	Shorting Bar			
Resistive	1A	10mA	1,000,000	1,000,000			
Resistive	5A	N/A	25,000	N/A			
Inductive	3A	N/A	25,000	N/A			

#### CHOICE OF SNAP-ACTION & SHORTING BAR ACTION

### **Raised Dome Button Style**



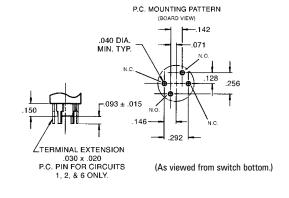
#### Flush Dome Button Style

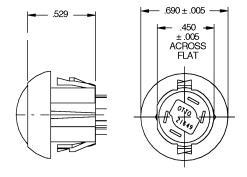


**Snap-in Case** 

Recommended Panel Openings						
*Panel Thickness	Recommended Ø	DIM. Across D-Flat				
.024*	Ø .505	.460				
.031	Ø .505	.460				
.118*	Ø .505	.460				
.125	Ø .505	.460				

- \* Must use panel gasket 401669 supplied with the switch.
- Snap-in Case allows front panel mounting into .024 or .118 thick panels using panel gasket 401669 or into .031 and .125 thick panels
- .110" Quick Connect terminals allow reliable, solderless wire connections
- Flush Neoprene Boot P/N 402339
- Raised Neoprene Boot P/N 402246





Snap-in Case Detail

## **Ordering Information**

Select the OTTO P9 series features that match your specific application. Standard and special features are shown at right. Specify your choice by building the OTTO Part Numbering code.

Example: P9-211121 specifies raised dome style button, threaded case, solder terminals, N.O. circuit form, standard snap-action, black case/bezel, red button.

	P9- X	XX	X X X	*	
Button and Case Style	Terminal Style	Circuit Form	Switch ( Action	Case/Bezel Color	Button Color
Flush Dome with threaded case Raised Dome with threaded case Flush Dome with snap-in case Raised Dome with snap-in case	1. Solder 2. PC pin 3110" Quick Connect	1. N.O. 2. N.C. ① 3. 2-Circuit ①	Standard Snap-Action Low force Snap-Action Non-Snap Shorting Ba	1	1. Red 2. Black 3. Orange 4. Yellow 5. Green
*Add "W" suffix for watertight.		① Not available	in Shorting Bar version.	5. Green 6. Blue 7. Purple 8. Gray 9. White	6. Blue 7. Purple 8. Gray 9. White